

Philip Henry Gosse's Entomology of Newfoundland.

Introductory Note by F. A. BRUTON, M.A., Litt.D.,

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Philip Henry Gosse, the English Naturalist, landed at Carbonear, in Newfoundland, in the year 1827, when he was seventeen years old; and for some eight years he was employed in a shipping firm in that country. In May, 1832, he purchased a copy of Adams's "Essays on the Microscope" at a sale at Harbour-Grace, and of that year he wrote: "In 1832 I commenced that serious and decisive devotion to scientific Natural History which has given the bent to my whole life."

In 1835 he left Newfoundland, and bought a farm at Compton in Canada. Here, in the following year, as his biographer tells us, he wrote his first book, entitled: "Entomologia Terrae Novae", which has never been published. Early in 1839 he returned to England, and on the voyage he wrote his "Canadian Naturalist", which was published in London in the next year, and had a favorable reception.

In response to a number of requests from Canada and Newfoundland, the late Sir Edmund Gosse searched carefully, but without success, for his father's "Entomologia Terrae Novae". Since Sir Edmund's death, however, the volume has been found by his son, Dr. Philip Gosse. In a small book, with between sixty and seventy pages, there are nearly two hundred and fifty beautiful hand-painted figures of insects, larvae, and pupae, and the pages are headed, in very faint pencil, more or less according to the list of orders and genera given in the twelfth edition of Linnaeus's "Systema Naturae."

In this connection, it may be interesting to quote a few sentences from the author's preface to his "Manual of Marine Zoology", published many years afterwards. There he says:

It is now about twenty-four years ago that, in a land far remote from this, I began the study of Systematic Zoology with Insects.

In my ignorance, I attacked it entire and indivisible—collecting and trying hard to identify everything that I found, from the Cicindela to the Podura.

I had not an atom of assistance towards the identifications, but the brief, highly condensed, and technical generic characters of Linnaeus's "Systema Naturae"; over which I puzzled my brains, specimens in hand, many an hour.

At the beginning and end of the book, very faintly pencilled, are long lists of insects, which seem to be of the nature of memoranda. One list is headed: "Insects described but not painted herein." The book, however, contains no descriptions whatever, and we can only conclude that the intention was frustrated by other duties. That a wide field is covered may be seen from the list that follows. The pictures evoked the admiration of the experts at the British Museum.

With the consent of Dr. Philip Gosse, I took the book to the British Museum (Natural History) at South Kensington, in March, 1929, and there Major Austen, D.S.O., who is the Keeper of Entomology, very kindly arranged that I should submit the book in turn to the Heads of the various Sections under his direction. I must here acknowledge, most gratefully, the great kindness of Major Austen and the following members of his Staff, who spared no pains in the attempt to identify and classify the Insects figured in the book. The names are:

Mr. G. J. Arrow and Mr. K. G. Blair, (Coleoptera); Mr. W. E. China and Mr. R. J. Izzard, (Hemiptera); Captain N. D. Riley, Mr. W. H. Tams, and Mr. H. Stringer, (Lepidoptera); Mr. D. E. Kimmins, (Neuroptera); Dr. Waterston, Mr. R. B. Benson, and Dr. Charles Ferrière, (Hymenoptera); and Miss D. Aubertin and Mr. F. W. Edwards, (Diptera).

Some of the figures are named, but hardly any of these names would stand now; a few had been re-named by Mr. W. H. Edwards in 1882. English names ("Banded Veneer", etc.) had been appended to a number of the moths.

ENTOMOLOGIA TERRAE NOVAE

PHILIP HENRY GOSSE

List of Insects Figured, Pages 1 to 61.

ORTHOPTERA

ACRIDIDAE: *Melanoplus* sp.

DERMAPTERA

FORFICULIDAE: *Forficula* sp.

EPIHEMEROPTERA

Three larvae of *Ephemera*.

ODONATA

GOMPHIDAE: *Gomphus* sp. AESCHNIDAE: *Aeschna* 2 spp.
CORDULIDAE: Two specimens. LIBELLULIDAE: *Libellula quadrimaculata* Linn. LESTIDAE: One specimen. AGRIONIDAE: Two specimens.

THYSANOPTERA

Thrips, sp.

HEMIPTERA

PENTATOMIDAE: Doubtful genus pencilled *Cimex*. LYGAEDAE: *Eremocoris fesus* Say. MIRIDAE: *Calocoris norvegicus* Gmelin. GERRIDAE: *Gerris remigis* Say. CORIXIDAE: One specimen, probably *Arctocoris* sp. (pencilled: *Notonecta*). CICADELLIDAE: *Deltocephalus configuratus* Uhler, *Draeculacephala angulifera* Walker or *noveboracensis* Fitch, *Evacanthus acuminatus* Fabricius.

NEUROPTERA

HEMEROBIIDAE: *Hemerobius* 2 spp.

TRICHOPTERA

LIMNOPHILIDAE: *Limnophilus* sp. Another specimen.

LEPIDOPTERA

Classified according to the Check-List of Lepidoptera of Boreal America: by Wm. Barnes and J. Mc. Dunnough.

RHOPALOCERA—PAPILIONIDAE: *Papilio glaucus canadensis* R. & J., *P. polyxenes brevicauda* Saunders. PIERIDAE: *Pieris napi* (*frigida* Scud.) gen. aest. *acadica*. Edw. NYMPHALIDAE: *Aglais milberti* Godt., *A. antiopa* Linn., *Vanessa atalanta* Linn., *Vanessa cardui* Linn. SATYRIDAE: *Oeniscus chryxus calais* Scud., *Coenonympha inornata* Edwards. LYCAENIDAE: *Hcodes epixanthe* Boisduval, *Plebeius scudderi aster* Edw., *Pl. aquilo* Boisduval, *Glaucopsyche lygdamus couperi* Grote.

HETEROCERA—NOCTUIDAE: *Euxoa* sp., *Agrotis plecta* Linn., *Lycophotia occulta* Linn. *Xylota nupta* Lintner, *Trachea finitima* Guenée, *Agroperina cogitata* Smith, *Eremobia claudens* Walker, *Hyppa xylinoides* Guenée, *Apamea nictitans* Linn., *Autographa brassicae* Riley, *A. putnami* Grote, *A. bimaculata* Stephens. LYMANTRIIDAE: *Notolophus antiqua* Linn. GEOMETRIDAE: *Rachela bruciata* Hulst, *Calocalpe undulata* Linn., *Dysstroma cervinifascia* Walker, *Eulype hastata* Linn., *Meso-*

leuca ruficiliata Guenée, *Lygris propulsata* Walker, *Eufidonia notataria* Walker, *Bapta vestaliata* Guenée, *Itame sulphurea* Packard, *I. subcessaria* Walker, *Pero honestarius* Walker. PYRALIDAE: *Crambus agitatellus* Clemens, *C. topiarius* Zeller, *C. innotatellus* Walker, *C. trichostomus* Christoph, *Evergestis straminealis* Hüb., *Phlyctaenia itysalis* Walker, *Pyrausta orphisalis* Walker. TORTRICIDAE: *Tortrix* sp. EUCOSMIDAE: *Epiblema* sp., *Olethreutes dealbana* Walker, *O. capreana* Hübner, *Ancylis biarcuana* Stephens. OECOPHORIDAE: *Depressaria* sp. (near *applanata* Fab.), *Dasycera* sp. (near *sulphurella* Fab.). PTEROPHORIDAE: *Platyptilia carduidactyla* Riley.

COLEOPTERA

CARABIDAE: *Sphaeroderus lecontei* Dej., *Notiophilus aquaticus* Linn., ? *Agonum* or ? *Platynus* (probably *Platynus cupripennis* Say.), *Carabus maeander* Fisch., *Loricera pilicornis* Fab. DYTISCIDAE: ? *Agabus*, ? *Hydroporus*. GYRINIDAE: *Gyrinus* sp. STAPHYLINIDAE: *Creophilus maxillosus* Linn. SILPHIDAE: *Necrophorus* ? *mortuorum* (Note: *mortuorum* is recorded from Nfld.). BYRRHIDAE: *Cytilus sericeus* Forst. (Nfld.). COCCINELLIDAE: *Coccinella trifasciata* Linn., *Adalia bipunctata* Linn. TELEPHORIDAE: *Telephorus* sp. ELATERIDAE: *Corymbites pictus* Cand., *C. triundulatus* Rand., *C. kendalli* Kirby. MORDELLIDAE: *Mordella* sp. PYROCHROIDAE: *Dendroides concolor* Newman. CEPHALOIDAE: *Cephaloon lepturoides* Hald. APHODIIDAE: *Aphodius fimetarius* Linn. CERAMBYCIDAE: *Criocephalus agrestis* Kirby, *Leptura* ? *lacta* Leconte, *Evodinus monticola* Rand. HALTICIDAE: *Phyllotreta vittata* Fab., *Chaetocnema* sp. CURCULIONIDAE: *Otiorhynchus* ? *sulcatus* Fab., *Orchestes* sp., *Sitona* 2 spp., *Notaris* ? *aethiops* Fab. or *puncticollis* Lec. (Nfld.), *Pissodes notatus* Fab., *Calandra* ? *granaria* Linn. or *oryzae* Linn. SCOLYTIDAE: *Dendroctonus rufipennis* Kirby.

HYMENOPTERA

TENTHREDINIDAE: Three larvae, *Cimbex violacea* Kirby, *Trichiosoma* (larva only), *Trichiosoma* sp. SIRICIDAE: *Urocercus albicornis* Fab. (female), *U. flavicornis* Fab. (male and female), *Sirex abbotii* Kirby (male), *S.* ? *cyaneus* Fab. (fe-

male). ICHNEUMONIDAE: (as numbered by Gosse): 1. *Coelichneumon cocculus* Cresson (female), 2. *Ichneumon* sp. (male), 3. *Henicospilus* sp. (female), 4. *Ctenichneumon* sp. (female), 5. *Ephialtes* sp. (female), 6. *Ichneumon* sp. (male), 7. *Ctenichneumon* sp. (male). CLEONYMIDAE: one figure (not *Chalcis* as marked). FORMICIDAE: *Formica* or *Camponotus* (an alate form). CHRYSIDIDAE: *Chrysis* sp. VESPIDAE: *Vespa* sp., *V. maculata* Linn., *Odynerus* sp. CRABRONIDAE: *Crabro* sp. APIDAE: *Nomada* sp.

DIPTERA

TIPULIDAE: *Pedicia albivitta* Walker, *Eriocera spinosa* Osten Sacken, *Tanyptera dorsalis* Walker. PTYCHOPTERIDAE: *Bittacomorpha clavipes* Fab. STRATIOMYIDAE: *Stratiomyia laticcps* Loew, *Oryccra* sp. TABANIDAE: *Chrysops* sp., *Tabanus zonalis* Kirby. ASILIDAE: *Laphria lasipus* Wiedemann. SYRPHIDAE: *Volucella ? erecta* Walker, *Syrphus* sp.

THE END.

A New Species of *Nemobius* from North Carolina (Orthoptera: Gryllidae).¹

By B. B. FULTON, N. C. State College, Raleigh, North Carolina.

*Nemobius sparsalsus*² new species.

This species was found in a strip of marsh grass, *Spartina stricta*, bordering a shallow sound near Carolina Beach, sixteen miles south of Wilmington, North Carolina. Its presence was detected by its distinctive type of song.

Type; female; Carolina Beach, N. C., Sept. 12, 1928. *Types* deposited in the U. S. National Museum.

Size large for the genus. Head as wide as pronotum. Eye 1.4 times as long as wide. Length of segments of maxillary palpus as follows: third 1.0 mm., fourth .7 mm., fifth 1.5 mm. Diameter of fifth segment increases gradually to tip which is slightly obliquely truncated; diameter at tip .35 mm. Pronotum 2.6 mm. long; greatest width at middle 3.4 mm.; slightly narrower at anterior and posterior margins; median line impressed; covered with fine brown pubescence and scattered black bristles. Tegmina cover about half the abdomen; dorsal

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² From *Spartina*, marsh grass and *salsus*, salt.